

### **REMARKS**

This paper is filed in response to the Office action mailed on June 26, 2007. In the Office action, all pending claims 1, 3-10, and 12-32 are rejected under 35 U.S.C. § 103(a) as being obvious in view of prior art.

In response, Applicant has amended independent claims 1, 23, and 27 of the instant application to incorporate limitation that further distinguish the claimed subject matter from the prior art. The amendments are supported by the specification at page 3, line 27 to page 4, line 8, and at page 6, lines 15-29. No new matter is added.

In view of the amendments and remarks provided herein, Applicant submits that all of the aforementioned rejections are overcome and that each of the amended set of claims is in a condition for allowance. Accordingly, reconsideration and withdrawal of all of the rejections are respectfully requested.

### **Rejections Under 35 U.S.C. § 103(a)**

In the Office action, claims 1, 4-10, 12-15, 18-19, 21, 23-28, and 31 are rejected as being obvious over U.S. Patent No. 6,589,274 ("Stiger") in view of U.S. Patent No. 5,439,446 ("Barry"); claims 3 and 20 are rejected as being obvious over Stiger and Barry, and further in view of U.S. Patent No. 5,035,694 ("Kasprzyk"); claims 16-17 and 29-30 are rejected as being obvious over Stiger and Barry, and further in view of U.S. Patent No. 5,037,427 ("Harada"); and finally claim 22 and 32 are rejected as being obvious over Stiger and Barry, and further in view of U.S. Patent No. 6,309,412 ("Lau").

We first address the obviousness rejection on the independent claims, all of which are rejected in view of the combination of Stiger and Barry. By way of this amendment, independent claims 1 and 23 now recite a stent delivery system comprising a heating element and an expandable stent made of a stent material having a shape memory transition temperature, wherein the heating element heats the stent to an elevated temperature that is higher than the shape memory transition temperature, thereby causing the stent to expand; and independent claims 14 and 27 now recite a method of deploying an expandable stent in a vasculature system comprising heating the stent to expand the stent and causing it to adhere to the vasculature system.

In view of this amendment, Applicants submit that the obviousness rejection of the independent claims must fail because the prior art fails to teach each element of the claims at issue. More specifically, neither Stiger nor Barry discloses or suggests a stent delivery system comprising an expandable stent made of a stent material having a shape memory transition temperature, and a heating element for heating the stent to an elevated temperature that is no lower than the shape memory transition temperature so that the stent expands in response to the heating. Consequently, the Examiner has failed to correctly determine the scope and content of the prior art, and by implication, has also failed to ascertain the differences between the claimed invention and the prior art as required under *Graham v John Deere Co.* 383 U.S. 1, 148 USPQ 459 (1966).

According to the Examiner, Stiger discloses a stent delivery catheter while Barry discloses a heating element. The Examiner further asserts that it would have been obvious to provide Stiger's stent delivery catheter with Barry's heating element in order to treat the vessel wall and to expand the stent "if it is self-expandable". Applicants respectfully submit that the combination suggested by the Examiner still fails to teach or suggest a stent that expands as a result of heating, as recited in each of the amended independent claims of the instant application.

In fact, Stiger is entirely directed toward the configuration of the stent delivery catheter and is irrelevant to the specific structure or composition of the stent used therein. Moreover, the expansion of Stiger's stent is caused by inflation pressure of a balloon (col. 2, lines 39-40 and col. 6, lines 6-12), and not by heating because no heating element is included in Stiger's stent delivery catheter. Therefore, Stiger fails to teach or suggest a stent that expands as a result of heating.

Much like Stiger, Barry also discloses a stent delivery system, in which a stent is deployed by the inflation of a balloon underneath to contact an aneurismal wall (col. 6, lines 48-51). Although Barry's delivery system may further include a heating source to heat the balloon, stent, and aneurysmal wall, such heating is purported to coagulate the aneurysmal wall for therapeutic purposes (col. 9, lines 28-34), and not to expand the stent. Consequently, Barry fails to teach or suggest a stent that expands as a result of heating as well.

Moreover, the combination suggested by the Examiner is based on improper hindsight reasoning. According to the Examiner, the motivation to incorporate Barry's heating element into Stiger's catheter is "to treat the vessel wall and to expand the stent if it is self-expandable" (page 4 of the Office action, emphasis added by Applicant). As discussed above, neither Stiger nor Barry contemplates a self-expandable stent or the desirability thereof. To use the disclosure of the instant application, and not of the prior art, as motivation to combine references is hindsight reasoning, and therefore improper. See MPEP § 2142.

Because the combination of Stiger and Barry does not teach or suggest a stent that expands as a result of heating, and because the motivation to combine Stiger and Barry is improper, at least the first and third criteria of a *prima facie* case of obviousness is not met. Accordingly, Applicant submits that the obviousness rejection on each of the amended independent claims is overcome and must be withdrawn.

With respect to the rest of the references cited by the Examiner, none of them teaches or suggests expansion of an expandable stent caused by heating, as recited in each independent claim amended herein. In fact, the rest of the references are merely cited by the Examiner to make the rejections on the pending dependent claims, and therefore adds nothing to the deficiencies of Stiger and Barry.

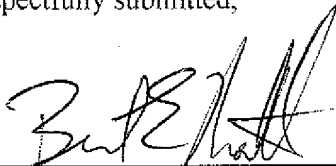
Thus, it is respectfully submitted that none of the amended independent claims is obvious over Stiger in view of Barry and further in view of Kasprzyk, Harada, and/or Lau. It follows that pending dependent claims depended thereon cannot be rendered obvious by same as well. Accordingly, Applicant respectfully submits that all of the aforementioned obviousness rejections are overcome and therefore must be withdrawn.

Appl. No 10/648,459  
Amdt. dated Sep. 24, 2007  
Reply to Office action of Jun. 26, 2007

An early action indicating the allowability of this application is respectfully requested. If a telephone call would expedite prosecution of the instant application, the Examiner is invited to call the undersigned attorney. The undersigned verifies that he is authorized to act on behalf of the assignee of the present application.

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Respectfully submitted,

By 

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